

What is claimed is:

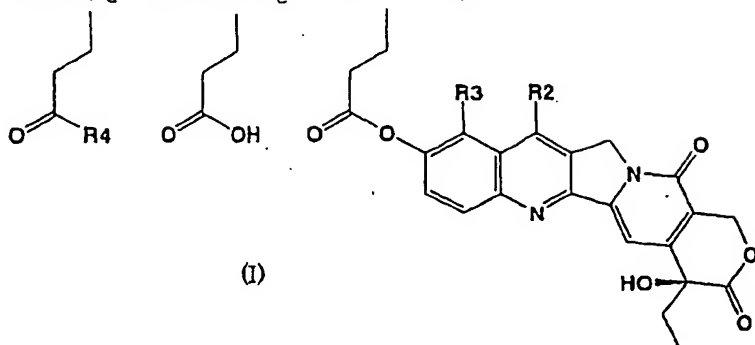
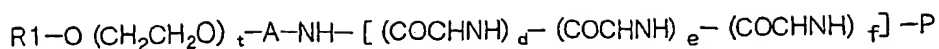
1. A high-molecular weight derivative of camptothecins having a structure wherein a carboxylic acid group of a copolymer of polyethylene glycol and a polymer having a carboxylic acid group at the side chain, is combined with a phenolic hydroxyl group of phenolic camptothecins via an ester bond.

2. The high-molecular weight derivative of camptothecins according to claim 1, wherein the copolymer of polyethylene glycol and a polymer having a carboxylic acid group at the side chain is a block copolymer of polyethylene glycol and a polymer having a carboxylic acid group at the side chain.

3. The high-molecular weight derivative of camptothecins according to claim 1 or 2, wherein the polymer having a carboxylic acid group at the side chain is an acidic amino acid polymer.

4. The high-molecular weight derivative of camptothecins according to claim 3, wherein the acidic amino acid polymer is polyglutamic acid or polyaspartic acid.

5. A high-molecular weight derivative of camptothecins of the general formula (I):



[wherein, R1 represents a hydrogen atom or a (C1 to C6) alkyl group optionally having a substituent, t represents an integer of 5 to 11500, A represents a bonding group, d+e+f represents an integer of 3 to 200, R2 represents a hydrogen atom or a (C1 to C6) alkyl group optionally having a substituent or a silyl group optionally having a substituent, R3 represents a hydrogen atom or a (C1 to C6) alkyl group optionally having a substituent, R4 may be the same or different and represents a (C1 to C20) alkoxy group optionally having a substituent, a (C1 to C20) alkylamino group optionally having a substituent, a di(C1 to C20) alkylamino group optionally having a substituent or a (C1 to C20) alkylaminocarbonyl (C1 to C20) alkylamino group optionally having a substituent, and P represents a hydrogen atom, a (C1 to C6) acyl group or a (C1 to C6) alkoxy carbonyl group.].

6. The high-molecular weight derivative of camptothecins according to claim 5, wherein R1 is a (C1 to C4) alkyl group optionally having a substituent, t is an integer of 100 to 300, A is a (C2 to C6) alkylene group, d+e+f is an integer of 6 to

60, the ratio of d is 0 to 60%, the ratio of e is 0 to 60% and the ratio of f is 1 to 100% based on d+e+f, R2 is a hydrogen atom or a (C1 to C4) alkyl group optionally having a substituent, R3 is a hydrogen atom or a (C1 to C4) alkyl group having no substituent, R4 may be the same or different and is a (C1 to C8) alkoxyl group optionally having a substituent, (C1 to C8) alkylamino group optionally having a substituent, di(C1 to C8) alkylamino group optionally having a substituent or (C1 to C8) alkylaminocarbonyl (C1 to C8) alkylamino group optionally having a substituent, and P is a (C2 to C4) acyl group.

7. The high-molecular weight derivative of camptothecins according to claim 6, wherein R1 is a methyl group, A is a trimethylene group, R2 is a hydrogen atom, R3 is a dimethylaminomethyl group, R4 is an isopropylaminocarbonylisopropylamino group, and P is an acetyl group.

8. The high-molecular weight derivative of camptothecins according to claim 6, wherein R1 is a methyl group, A is a trimethylene group, R2 is an ethyl group, R3 is a hydrogen atom, R4 is an isopropylaminocarbonylisopropylamino group, and P is an acetyl group.

9. A high-molecular weight derivative of camptothecins, obtained by reacting a block copolymer of a polyethylene glycol portion and polyaminoglutamic acid or polyaspartic acid, with phenolic camptothecins in an organic solvent using a condensing agent.

10. A method of producing the high-molecular weight

derivative of camptothecins according to any of claims 1 to 8, comprising combining a carboxylic acid group of a copolymer of polyethylene glycol and a polymer having a carboxylic acid group at the side chain, with a phenolic hydroxyl group of phenolic camptothecins via an ester bond, using a condensing agent.

11. An anticancer agent comprising the high-molecular weight derivative of camptothecins according to any of claims 1 to 9.